Short

Safety

Subject

Ergonomics

You've probably heard the term "ergonomics" before. It's a relatively new field of study concerning how a person interacts with the working environment. "Ergonomics" is a broad field, but the basic goal of an ergonomics program is injury prevention. This injury prevention is accomplished by fitting the job to the worker instead of fitting the worker to the job. Today we take a look at ergonomic concerns in the workplace, and what you can do to prevent injuries caused by poor ergonomics. Many of the suggestions in this topic can be adapted for use outside the workplace, helping you to prevent injuries at home.

Injuries arising from poor ergonomic conditions typically involve the bones, muscles, joints, tendons, and nerves. Symptoms of these injuries are:

painful joints
pain, tingling or numbness in hands or feet
pain in wrists, shoulders, forearms, knees, etc.
back or neck pain
fingers or toes turning white
shooting or stabbing pains in arms or legs
swelling or inflammation
stiffness
weakness or clumsiness in hands
burning sensations
heaviness

These symptoms could also be the result of other medical conditions, so check with your doctor if you are concerned about any of these. The good news is that ergonomic problems can usually be solved by simple, common-sense solutions. Injuries that are caused by awkward posture can be prevented by improving your position while you work. Any time you must twist your body, work overhead, kneel, bend over, or squat you increase your risk of an injury. Repetition of these movements further increases your chance of injury.

Occasional awkward posture is probably no cause for alarm, but if you find yourself repeatedly bending, stretching, and twisting, making some simple adjustments to the work environment can solve the problem of awkward posture. Your workstation may need some adjustment, or the materials you use in performing your job may need to be re-arranged to eliminate bending,

twisting, and other awkward movements. Store frequently-used materials in front of you at waist height. Heavier objects should not be placed overhead but they don't have to be on the floor, either. Place them at a level so they are easier to lift. Use of mechanical lifting equipment may also be possible.

Repetitive motion tasks can also lead to injuries. If your job requires you to make the same motions repeatedly, consider learning the correct posture for the job. You may find that there is equipment available to use which will reduce your chance of injury. However, don't depend only on a back or wrist brace to protect you. Your best prevention is to maintain the correct position for the task, take breaks, and exercises to help prevent injury.

Some other causes of ergonomic injuries are:

- sustained muscle exertion, which reduces blood flow to the muscles and causes muscle strains and sprains
- contact stresses, which are injuries that occur due to repeated contact with a hard surface
- extreme temperature, which can reduce sensitivity to pain and reduce blood flow
- vibration, which can reduce blood flow and sensory response

In some of these cases it may not be possible to make a simple adjustment to overcome the problem. There are factors within your control, however. Sometimes you may be tempted to use your body itself as a tool. Have you ever used your hand or foot to kick or pound an object? Have you ever taken a shortcut and neglected to use the right piece of equipment to do the job? You may have substituted your hands for a vise, your knee for a ram, or your back for a hand truck. All of these situations put you at risk of an injury. That shortcut could cost you a lot of time and unnecessary suffering. Think twice before you use your body as a tool. It will thank you for it!

We have discussed the symptoms and causes of injuries caused by poor ergonomics. Being aware of the causes of injuries is the first step in preventing them. As you work, take a look around you at the situations which could cause an injury and take steps to correct them. Fitting the job to the person is not a difficult thing to do, and it will help keep you working injury-free for a long time to come!